



SR-6J

Mr. Nile Fellows
Minnesota Pollution Control Agency
520 Lafayette Rd. N.
St. Paul, MN 55155-4194

RE: Fridley Municipal Well Field National Priorities List (NPL) Site
EPA ID #MND985701309

Dear Mr. Fellows,

By this letter, I am providing final comments by the United States Environmental Protection Agency (U.S. EPA) relative to the Limited Remedial Investigation (LRI)/ Feasibility Study (FS) work plan for the Fridley Commons Park Well Field National Priority List (NPL) Superfund Site. U.S. EPA apologizes for the delay in getting these final comments to you. These comments are consistent with the discussions that have occurred between the agencies to-date, and the draft comments and follow-up correspondence that have been provided to you.

U.S. EPA approved the Minnesota Pollution Control Agency's (MPCA) cooperative agreement application in which the U.S. EPA agreed to fund the LRI/ FS. U.S. EPA stressed the importance of a thorough Potentially Responsible Party (PRP) search. We were in agreement that several actions could occur at this Site on a parallel track; these are that the LRI/FS and the PRP search. Enclosed with this letter, are comments to both the LRI/FS Work Plan and the PRP Search. I would be happy to discuss these comments with you. U.S. EPA would appreciate receiving responses to these comments and a revised work plan, if needed.

If you would like to discuss these comments further or have any questions, you may reach me at (312) 886-4745. Thank you and we look forward to working with you on this Site.

Sincerely,

Sheri L. Bianchin
Remedial Project Manager
Remedial Response Section #3

encl.

cc: Lois Betka, U.S. EPA
Marsha Adams, U.S. EPA
Bob Kay, U.S. EPA

ENCLOSURE 1
U.S. EPA Comments to the Limited Remedial Investigation Work Plan, Fridley
Commons Park Well Field, Fridley, Minnesota

GENERAL COMMENTS

1. Schedule. Please provide an updated schedule for the activities described in the work plan.
2. Apparently no Field Sampling Plan (FSP) or Quality Assurance Project Plan (QAPP) has been included in the plan. If not already done, a FSP and QAPP should be prepared and approved. For example, although the work plan proposed to conduct a geoprobe™ investigation, there is no Standard Operating Procedure (SOP) included to describe the methodology such as how deep samples will be taken, how they will be taken, and what methods will be used for analysis.
3. U.S. EPA would appreciate being invited to the any meetings that are held regarding site progress.
4. It is not clear, if after the file review that additional investigations are necessary, when they would be proposed. Please clarify.
5. If known, explain the ground water monitoring/sampling program utilized by the Fridley municipality.
6. A well receptor survey should be completed, if not already available, for the area where any contaminated ground water is suspected (such as a 1-2 mile radius from the well field.) Within the context of the comprehensive well receptor survey, it would be wise to determine how the wells were constructed, if this information is available, and whether any sampling has occurred to date.
7. The monitoring plan of the municipal and private wells in the area should be examined to determine whether they are adequate.
8. Discuss whether a well head protection program exists in the area.
9. It may be prudent to place a well in the Prairie Du Chien aquifer between the well field and Well 13 which is a Prairie Du Chien Well. Please discuss if this was considered, and if so, why it was ruled out.
10. A valid concern has been raised by MPCA regarding the site-specific issues that may make it difficult to pin point the source of contamination. U.S. EPA is aware of the challenges which exist on this site due to the hydrogeology, and thus did approve of the concept of a limited-

remedial investigation. A detailed explanation and rationale should be included for doing a limited remedial investigation (LRI), including scientific judgment for not performing a traditional type investigation. This explanation should also be carried forth into the LRI report and expanded based upon new information.

Furthermore, if the fractured nature of the bedrock is the major limiting factor in this investigation, then this must be documented. Following are several recommendations which might help to get some more certainty in this investigation given the site-specific issues. Please respond whether or not this information has been considered and if ruled out, the reason(s) why.

A. Please describe whether any innovative investigatory technologies have been considered such as "tracer" studies. Please elaborate

B. Collection of ground-water level data from all of the wells in the area is an essential first step in trying to find the source area. These measurements should be taken from all of the available wells, including the municipal wells, the school wells, and wells from nearby industrial and commercial facilities. These levels should be collected, if at all possible, following a period of no pumping from the Prairie du Chien wells, and also during a time of high pumping from these wells. Water levels should also be collected on a periodic basis (such as monthly or quarterly) to identify the range of conditions. There is one set of measurements from various Prairie du Chien wells in the area in the Barr report (figure 9), but these measurements do not appear to include the wells at the site. It also appears these measurements may not have been taken during a period of substantial pumping at the Fridley wells. The few measurements collected from the site wells were not taken during a time when measurements were taken in other wells, reducing the amount of information they provide.

The available water-level data from fig. 9 of the Barr report indicate flow from east to west, which indicates a source to the east or northeast. The general tendency for the highest TCE concentrations to be present in the northeast part of the site (wells 7, 8, 9, and to some degree the Middle School) in comparison to wells 6 and the High School, which are located north and south of the most impacted area also may indicate a source to the northeast. Also, there appears to be some tendency for TCE concentrations in well 6 to increase when pumping in wells 7 and 8 is less than normal, and to decrease when wells 7 and 8 pump high volumes, indicating the potential to pull the plume north.

Flow from the northeast is consistent with a source from the Onan or Medtronics facilities. Flow from the east/northeast is also generally consistent with a source from the area of MPCA well No. 3 and well 409U4. The presence of substantial concentrations of TCE in the bedrock at the MPCA and 409U4 wells indicates these are near potential source areas and this area should be given some consideration. The absence of TCE in the bedrock wells northeast of the site does not necessarily mean these are not source areas. It is possible that the plume at the Onan and Medtronics facilities just hasn't migrated to the depth of the bedrock near these sites or that the wells are not screened in the proper depths in the aquifer.

C. If there is any data on water chemistry other than VOCs for these wells and other wells in the area, it should be analyzed. Ground-water VOC plumes are often associated with changes in concentration of other compounds—chloride, alkalinity, iron, etc., that might serve as a tracer to the contaminant source.

D. A computer model simulating ground-water flow and contaminant transport in the Prairie du Chien and drift deposits also might identify potential source areas, which could then be investigated. This would probably involve a fairly substantial effort, but if someone has done a wellhead protection analysis, this would be a decent place to start.

E. Though the aquifer seems to be approximately isotropic based on the results of the aquifer testing, information on the orientation of vertical and inclined fractures in the Prairie du Chien might be useful in identifying source areas.

F. Assuming the wells are open holes, geophysical logging of some of the Fridley wells with acoustic televiewer and flowmeter logs coupled with VOC sampling at various depths might provide some insight into sources of variation in water quality between the various municipal wells.

G. Monitoring water levels in some of the Prairie du Chien wells in the area on a frequent (15-60 minutes) basis for a period of several weeks might indicate geographic areas where the water-supply wells draw their water (and contaminants) from.

SPECIFIC COMMENTS

11. **Section 1, Introduction.** As is mentioned in the general comments above, within this section and/or elsewhere in the report, a detailed explanation and rationale should be included for doing a Limited Remedial Investigation (LRI), including scientific judgment for not performing a traditional type investigation. This explanation should also be carried forth into the LRI report and expanded based upon new information.

12. **Section 2.2, Background Information.** Please clarify that the City operates 13 municipal wells in total. Any contamination to date detected in the city's groundwater has originated from the Prairie du Chien aquifer. It appears from review of site information, that any ground water contamination detected has originated in the Prairie du Chien-Jordan Aquifer. If this is not true, then disregard the comment.

13. **Section 2.2, Background Information.** The section should include the other wells operated by the city outside the well field proper such as Well #13. Fridley Well #13 is open to the Prairie Du Chien Aquifer and contamination has also been detected in this well. If available, discuss the sampling plan for Well #13, and what the results have been of late. Furthermore, the report should address any other wells that may be contaminated in the area.

The work plan seems to focus on the main well field due to fact that it was listed on the National

Priorities List that way. It is appropriate to expand the investigation based upon migration of contaminations and where it has come to be located. See attachment for further explanation.

14. **Task 4.0: Moore Lake Dump Investigation.** An investigation of the Moore Lake Dump seems overdue and should be done. The effort in the work plan seems potentially inadequate; however, a phased approach, such as is proposed, may be most efficient. Discuss the methods proposed for volatile organic compound (VOC) analysis and what specific VOC constituents will be analyzed for. Discuss the limits of detection of the proposed method(s) for the analysis. Additionally, please indicate on the map precisely where the dump is located. See also general comment above regarding the FSP and QAPP.

15. **Task 5.0: School Well Sampling.** Discuss the specific VOCs that will be detected with the proposed method and the limits of detection for the method proposed. See also general comment above regarding the FSP and QAPP.

16. **Task 6.0: Limited Remedial Investigation Report.** Please include any investigations that are conducted as part of the LRI. and a detailed discussion why the site investigatory strategy was to conduct a LRI. Provide supporting documentation.

ATTACHMENT

How are Site Boundaries Defined?

The NPL does not describe releases in precise geographical terms; it would be neither feasible nor consistent with the limited purpose of the NPL (to identify releases that are priorities for further evaluation), for it to do so.

Although a CERCLA "facility" is broadly defined to include any area where a hazardous substance release has "come to be located" (CERCLA section 101(9)), the listing process itself is not intended to define or reflect the boundaries of such facilities or releases. Of course, HRS data (if the HRS is used to list a site) upon which the NPL placement was based will, to some extent, describe the release(s) at issue. That is, the NPL site would include all releases evaluated as part of that HRS analysis.

When a site is listed, the approach generally used to describe the relevant release(s) is to delineate a geographical area (usually the area within an installation or plant boundaries) and identify the site by reference to that area. As a legal matter, the site is not coextensive with that area, and the boundaries of the installation or plant are not the "boundaries" of the site. Rather, the site consists of all contaminated areas within the area used to identify the site, as well as any other location to which that contamination has come to be located, or from which that contamination came.

In other words, while geographic terms are often used to designate the site (e.g., the "Jones Co. plant site") in terms of the property owned by a particular party, the site properly understood is not limited to that property (e.g., it may extend beyond the property due to contaminant migration), and conversely may not occupy the full extent of the property (e.g., where there are uncontaminated parts of the identified property, they may not be, strictly speaking, part of the "site"). The "site" is thus neither equal to nor confined by the boundaries of any specific property that may give the site its name, and the name itself should not be read to imply that this site is coextensive with the entire area within the property boundary of the installation or plant. The precise nature and extent of the site are typically not known at the time of listing. Also, the site name is merely used to help identify the geographic location of the contamination. For example, the "Jones Co. plant site," does not imply that the Jones company is responsible for the contamination located on the plant site.

EPA regulations provide that the "nature and extent of the threat presented by a release" will be determined by a remedial investigation/feasibility study (RI/FS) as more information is developed on site contamination (40 CFR 300.5). During the RI/FS process, the release may be found to be larger or smaller than was originally thought, as more is learned about the source(s) and the migration of the contamination. However, this inquiry focuses on an evaluation of the threat posed; the boundaries of the release need not be exactly defined. Moreover, it generally is impossible to discover the full extent of where the contamination "has come to be located" before all necessary studies and remedial work are completed at a site. Indeed, the known boundaries of the contamination can be expected to change over time. Thus, in most cases, it may be

impossible to describe the boundaries of a release with absolute certainty.

Further, as noted above, NPL listing does not assign liability to any party or to the owner of any specific property. Thus, if a party does not believe it is liable for releases on discrete parcels of property, supporting information can be submitted to the Agency at any time after a party receives notice it is a potentially responsible party.

For these reasons, the NPL need not be amended as further research reveals more information about the location of the contamination or release.

ENCLOSURE 2

U.S. EPA Comments to the Potentially Responsible Party (PRP) Searches for the Fridley Commons Park Well Field National Priorities List Superfund Site , Fridley, Minnesota

As has been articulated in the past, it is U.S. EPA's policy is to require the lead agency to perform adequate enforcement efforts and steps in conducting potentially responsible party (PRP) searches prior to funding of remedial activities. This becomes especially important in fund lead sites. In particular, in this case, the State will need to show evidence of their technical and legal efforts to locate PRPs. Your cover letter states that the MPCA sent out requests for information letters to companies that used solvents and are located within two miles of the site. Please provide a detailed summary regarding how many requests were sent, what companies received these information requests, what the results were and how the conclusions were reached. U.S. EPA is willing to assist in this effort, if desired and needed.